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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/655,659	09/06/2000	Alex Radulovic	15095.3	8979
22913	7590	09/02/2005		
			EXAMINER	
			FERRIS, DERRICK W	
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/655,659	RADULOVIC, ALEX
	Examiner Derrick W. Ferris	Art Unit 2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 28 June 2005.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-16 and 18-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-16 and 18-41 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 06 September 2000 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/28/2005 has been entered.

Response to Amendment

2. **Claims 1-16, 18-41** as amended are still in consideration for this application. Applicant has amended claims 1, 15, 23 and 24. Applicant has canceled claim 17. Applicant has added claims 28-41.

3. Examiner **withdraws** the obviousness rejection to *Korpi* in view of *Thom* (or corresponding rejections) for Office action filed 6/28/2005 since applicant's amended limitations were not found in either reference. However, please note the new rejection based on applicant's claims as necessitated by amendment.

Priority

4. This application repeats a substantial portion of prior Application No. 08/585,628, filed 01/16/1996, and adds and claims additional disclosure not presented in the prior application. Since this application names an inventor or inventors named in the prior application, it may constitute a continuation-in-part of the prior application. Should applicant desire to obtain the benefit of the filing date of the prior application, attention is directed to 35 U.S.C. 120 and 37 CFR 1.78. In particular, all the independent claims recite *a control path and a real time data*

path. As pointed out by the examiner in the previous Office action, applicant's figure 2 shows the newly claimed subject matter as part of the app center 100 (i.e., inside the dashed lines) which includes the control and real-time data paths such that the claims should not receive priority since the limitation falls inside the dashed lines (i.e., the IMCP as defined in applicant's specification at e.g., page 18, line 6). In particular, the above limitation at issue was not found in applicant's parent cases U.S. patent application **08/585,628** filed 01/16/1996 titled "Voice Internet Transmission System" (see WO 97/29581) and U.S. patent application **08/599,238** filed 02/09/1996 titled "Facsimile Internet Transmission System" (see WO 97/26753) to C-I-P application 09/655,659 titled "Private IP communications network architecture". Specifically, figure 7 of 08/585,628 does not clearly teach the above limitation at issues on pages 20-21 since the reference is not clear that there are two distinct or dedicated channels, one for data and one for control information (see e.g., applicant's claim 7).

Claim Objections

5. **Claims 32-33 and 38-39** are objected to because of the following informalities: In particular, these claims reference "C4P" and/or "C4" which is not further defined in the claims (i.e., a communication proxy server and a logical digital switch respectively). Please define the above terms in the claims or change the claim dependency. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. **Claim 34** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In particular, applicant's application does not appear to support the special case of when a resource is not free. Instead applicant's specification references that the case is possible but does not further explain how the request is handled where how the request is handled is recited in the claims. In particular, applicant's figure 3 describes call flow control for setting up a session when a call is free and pages 30-31 do not teach the specific limitations recited in the claims. Specifically, applicant just teaches a "CallClear" signal but doesn't describe how signal is used.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 1-4, 6, and 9-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over "Supplementary Services in the H.323 IP Telephony Network" to *Korpi et al.* ("Korpi") in view of "H.323: The Multimedia Communications Standard for Local Area Networks" to *Thom* and U.S. Patent No. 6,856,676 B1 to *Pirot et al.* ("Pirot").

As to **claim 1**, *Korpi* discloses a control path connection on a network layer between individual components attached to the dispersed networks (e.g., applicant's CE 50) and at least one central arbitration server (e.g., applicant's CAS 40) as shown in

figure 1 on page 119. In particular, a fax/voice gateway is an example of an individual component (i.e., applicant's CE 50) and Gatekeeper Y/Router is an example of a central arbitration server (i.e., in reference to applicant's specification on page 17, lines 1-2). In addition, a step of initiating a data path connection between the individual components designated by the service request is also shown in figure 1. Also shown in the figure is a further step of receiving a "service request" using a reasonable but broad interpretation of "service request". In addition, as H.323 runs on top of IP examiner notes IP as a network layer.

Korpi is silent or deficient to the further limitation of the step initiating a service level layer to supply the requested service.

Thom teaches the above-mentioned further limitation in figure 4 on page 55.

Examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the further limitation of the step initiating a service level layer to supply the requested service. In particular, the *Korpi* reference would be modified to disclose initiating a service layer request based on the gatekeeper as shown in figure 4. The suggestion or motivation for doing so would have been obvious since both reference disclose setting up a call signal in general, and for H.323 in particular.

Korpi and *Thom* are also further silent or deficient to the limitation(s) of the step of the central arbitration server populating one or more call detail record fields by default; and the step of the central arbitration server allowing an application corresponding to the requested service to extend the one or more call detail record fields known to the central arbitration server by adding at least one call detail record field defined by the application.

In particular, *Korpi* only teaches that the gatekeeper (i.e., applicant's CAS) handles accounting, see e.g., left-hand column on page 118, but does not describe how billing is performed.

Pirot teaches the above limitation(s) where the Media Gateway Control 12 (see figure 1) acts as a gatekeeper or CAS that interfaces with gateway devices (i.e., CE), see e.g., column 1, lines 56-57 of *Pirot*. In particular, the Media Gateway Control 12 contains Service Management and Provisioning functionality 52 which is used to alter and update billing fields, see e.g., column 7, line 59 – column 8, line 11 and column 11, lines 16-20 of *Pirot*. Specifically, operators, clients, or owners can modify “subscriber parameters” or “host parameters” where subscriber parameters and host parameters include e.g., billing information, see e.g., column 12, lines 45-60 and column 13, lines 25-35 of *Pirot* using either the subscriber management system or host management system respectively. Thus operators, clients or owners (i.e., an application as claimed) can add and populate fields to the database, see e.g., column 13, lines 1-53 of *Pirot*. Thus by modifying/adding the fields in the database the call detail records are extended. These fields are further populated by the billing system to generate billing information.

Thus the examiner proposes to modify *Korpi* and *Thom* to further clarify how a billing system is implemented as is known in the art prior to applicant's invention.

Hence examiner notes that the above limitation(s) would have been obvious to one skilled in the art prior to applicants to invention. In particular, one skilled in the art would have been motivated to make the above modification for the purpose of control and manage voice and data services. As such, *Pirot* teaches the above motivation at e.g.,

column 1, lines 48-50. Examiner also notes a reasonable expectation of success since the Media Gateway Controller 12 works with H.323 as taught e.g., by both *Korpi* and *Thom*.

As to **claim 2**, see e.g., at least page 118 left-hand column of *Korpi*.

As to **claim 3**, see e.g., at least page 118 left-hand column with respect to gatekeeper of *Korpi*.

As to **claim 4**, see e.g., page 124, right-hand column.

As to **claim 6**, see e.g., figure 4 on page 55 of *Thom*.

As to **claims 9-11**, see e.g., figure 4 on page 55 of *Thom*.

As to **claim 12**, see e.g., figure 5 on page 55 of *Thom*.

As to **claim 13**, see e.g., figure 5 on page 55 of *Thom* and left-hand column of page 119 of *Korpi*.

10. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over “Supplementary Services in the H.323 IP Telephony Network” to *Korpi et al.* (“*Korpi*”) in view of “H.323: The Multimedia Communications Standard for Local Area Networks” to *Thom* and U.S. Patent No. 6,856,676 B1 to *Pirot et al.* (“*Pirot*”) and in further view of U.S. Patent No. 6,529,499 B1 to *Doshi et al.* (“*Doshi*”) and U.S. Patent No. 6,504,838 B1 to *Kwan*.

As to **claim 5**, for types of data see e.g., page 52, left-hand column of *Thom*; and page 118, left-hand column of *Korpi*. *Korpi*, *Thom* and *Pirot* are silent to the further limitation of modem data and silence/background noises. Examiner notes that it would have been obvious to one skilled in the art prior to applicant’s invention to include modem data and silence/background noises. In particular, one skilled in the art would be motivated to include modem data and silence/background noises as part of transporting

voice in general since voice contains periods of silence and background noises, and modem data is transported over a voice (PSTN) link. (Examiner notes applicant only claims and supports that such information is possible to transport on a data path.) As such, *Doshi* cures the above-cited deficiency by disclosing that it is possible to transport silence/background information over an H.323/SIP network (e.g., see column 3, lines 1-42). As such, *Kwan* cures the above-cited deficiency by disclosing that it is possible to transport modem information over an H.323 network (e.g., figure 5; column 10, lines 5-24).

11. **Claims 7 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over “Supplementary Services in the H.323 IP Telephony Network” to *Korpi et al.* (“*Korpi*”) in view of “H.323: The Multimedia Communications Standard for Local Area Networks” to *Thom* and U.S. Patent No. 6,856,676 B1 to *Pirot et al.* (“*Pirot*”) and in further view of U.S. Patent No. 6,519,249 B1 to *Bennefeld et al.* (“*Bennefeld*”).

As to **claim 7**, *Korpi*, *Thom* and *Pirot* are silent to the further limitation of recoding and monitoring the call control messages (i.e., billing information). Although *Korpi* does disclose that the gatekeeper supports accounting (e.g., see left-hand column on page 118), *Korpi* may be silent to monitoring and storing the call control messages. Examiner notes that it would have been obvious to one skilled in the art prior to applicant’s invention to include recoding and monitoring the call control messages. In particular, one skilled in the art would be motivated to record and monitor call detail records for the purpose of generating revenue for data on a network. As such, *Bennefeld* cures the above-cited deficiency by disclosing recording and monitoring billing

information. In particular, *Bennefeld* discloses monitoring and recording with respect to a gatekeeper on an H.323 network (e.g., see at least column 1, lines 60-67).

As to **claim 8**, *Korpi*, *Thom* and *Pirot* are silent to the further limitation of optimizing routing resources using at least, least cost routing, failure bypass, load balancing, and class or service. In particular, *Thom* teaches that QoS is generally not supported in H.323 (e.g., see page 56, left-hand column). Examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to optimize routing resources using at least, least cost routing, failure bypass, load balancing, and class or service. In particular, one skilled in the art would be motivated to optimize a route based on the dynamic environment of a network. As such, *Bennefeld* cures the above-cited deficiency by disclosing that routes can be optimized by at least load balancing for a dynamic network (e.g., see at least column 1, lines 60-67; column 3, lines 12-26).

12. **Claims 14, 24, 26, and 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over "Supplementary Services in the H.323 IP Telephony Network" to *Korpi et al.* ("*Korpi*") in view of "H.323: The Multimedia Communications Standard for Local Area Networks" to *Thom* and U.S. Patent No. 6,856,676 B1 to *Pirot et al.* ("*Pirot*") and in further view of U.S. Patent Application 2001/0046234 A1 to *Agrawal et al.* ("*Agrawal*") and "RFC 2806 – URLS for Telephone Calls" to *Vaha-Sipila*.

As to **claim 14** *Korpi*, *Thom* and *Pirot* are silent to the further limitation of using a (text) label. In particular, since *Korpi* and *Thom* teach using H.323, *Korpi* and *Thom* teach using binary encoding instead of a (text) label (e.g., see figure 1 of *Agrawal*).

Examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to use labels since labels are supported for a SIP protocol. In particular, one would be motivated to use labels to communicate with at least a SIP network since a SIP protocol communicates using text labels. As support and motivation, *Agrawal* discloses using labels. In particular, as shown in figure 5 an IWF 100 function is capable of operating over both SIP and H.323. Thus both properties of SIP and H.323 are further taught by the reference (e.g., the reference teaches using both binary for H.323 and text labels for SIP when communicating to a gatekeeper/server). As an additional reference, *Vaha-Sipila* further builds on the concept by disclosing specific labels for a SIP network including telephone, fax, and voice information. Thus *Vaha-Sipila* further teaches the limitation of varying a call detail record based in part upon the data type (text) label.

As to **claims 24 and 26**, see e.g., the combined reasoning for the rejections for claims 1 and 14.

As to **claims 27**, see figure 1 of *Korpi*.

13. **Claims 15, 16, 18-23, 31-33 and 35-41** are rejected under 35 U.S.C. 103(a) as being unpatentable over "Supplementary Services in the H.323 IP Telephony Network" to *Korpi et al.* ("*Korpi*") in view of "H.323: The Multimedia Communications Standard for Local Area Networks" to *Thom* and U.S. Patent No. 6,856,676 B1 to *Pirot et al.* ("*Pirot*") and in further view of "C6x Solutions for Voice over IP Gateway" to *Cassing*.

As to **claim 15**, *Korpi*, *Thom*, and *Pirot* are silent to the further limitation using a digital signal processor on receiving signals to generate encoded signals at the gateway

for a control path. In particular, *Thom* discloses translating call signaling but is silent or deficient to using a DSP (e.g., see page 54, left-hand column). Examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to use a digital signal processor on receiving signals to generate encoded signals at the gateway for a control path. One skilled in the art would be motivated to use a DSP in the gateway for voice compression such as G.723.1. *Cassing* cures the above-cited deficiency by disclosing a DSP in a VoIP gateway such as an H.323 gateway (e.g., see page 76 Section 3.1). Thus *Cassing* provides support and motivation for using a digital signal processor on receiving signals to generate encoded signals at the gateway for a control path.

As to **claim 16**, see e.g., figure 1 on page 119 of *Korpi*.

As to **claims 18 and 19**, see figure 1 of *Korpi*. In particular, the C4P is e.g., taught in figure 1 of *Kopi* as a Fax/voice gateway.

As to **claim 20**, see similar rejection to claim 14 where examiner notes a reasonable but broad interpretation of IMCP to be either SIP or H.323 (i.e., applicant does not claim specific attributes of IMCP such as a text label running on top of or at a network layer).

As to **claim 21**, see e.g., figure 4 on page 55 of *Thom*.

As to **claim 22**, see e.g., figure 1 on page 119 of *Korpi*.

As to **claim 23**, see e.g., figure 4 on page 55 of *Thom*.

As to **claim 31**, the C4P is e.g., taught in figure 1 of *Kopi* as a Fax/voice gateway.

As to **claim 32**, see e.g., figure 1 of *Kopi* where a C4P is the router in Domain Y.

The control layer is the Fax/voice gateway in Domain Y. The one or more user terminals are shown in the figure as connected as part of the PSTN or GSM.

As to **claim 33**, see e.g., figure 1 of *Kopi* where a C4P is the router in Domain Y.

The C4 is the Fax/voice gateway in Domain Y. The one or more user terminals are shown in the figure as connected as part of the PSTN or GSM.

As to **claim 35-39**, the CAS is the gatekeeper e.g., in either Domain X or Domain Y of *Kopi*. The CE device is the gateway, e.g., the router in either Domain X or Domain Y of *Kopi*. The C4 is the Fax/voice gateway e.g., in Domain Y. The C4P is e.g., the router in Domain Y. The user terminals are either the H.323 terminals or the terminals shown attached in the circuit-switched network in figure 1.

As to **claims 40-41**, the CAS is the gatekeeper e.g., in either Domain X or Domain Y of *Kopi*. The gatekeeper is responsible for routing the call such that the path is re-directed, see e.g., the second model on page 55 of *Thom*. Since the call is routed there is no service disruption to the call.

14. **Claim 25** is rejected under 35 U.S.C. 103(a) as being unpatentable over “Supplementary Services in the H.323 IP Telephony Network” to *Korpi et al.* (“*Korpi*”) in view of “H.323: The Multimedia Communications Standard for Local Area Networks” to *Thom* and U.S. Patent No. 6,856,676 B1 to *Pirot et al.* (“*Pirot*”) and in further view of U.S. Patent Application 2001/0046234 A1 to *Agrawal et al.* (“*Agrawal*”), “RFC 2806 – URLs for Telephone Calls” to *Vaha-Sipila*, and U.S. Patent No. 5,471,470A to *Sharma et al.* (“*Sharma*”).

As to **claim 25**, *Korpi, Thom, Pirot, Agrawal*, and *Vaha-Sipila* are silent to the further limitation of the specific structure of a telephone which includes at least a speaker and a microphone. Examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to use a telephone which includes at least a speaker and a microphone. In particular, one skilled in the art would be motivated to use a microphone to talk into a telephone and use a speaker to listen to an incoming call as is known in the art. *Sharma* provides further support and motivation by disclosing in figure 3 a telephone (shown as 20 in figure 1) that has at least a microphone 303 and speaker 304 (e.g., see column 8).

15. **Claims 28-30** are rejected under 35 U.S.C. 103(a) as being unpatentable over "Supplementary Services in the H.323 IP Telephony Network" to *Korpi et al.* ("*Korpi*") in view of "H.323: The Multimedia Communications Standard for Local Area Networks" to *Thom* and U.S. Patent No. 6,856,676 B1 to *Pirot et al.* ("*Pirot*") and in further view of U.S. Patent No. 6,918,034 B1 to *Sengodan et al.* ("*Sengodan*").

As to **claims 28-30**, *Korpi, Thom*, and *Pirot* are silent to aggregating data payloads from one or more originating devices to the packet. In particular, *Korpi* teaches supplying signaling information about one or more packet destinations in the form of control signaling as mentioned in the rejection for claim 12 (as well as for the other corresponding signaling information). *Korpi* also teaches using RTP, see e.g., left-hand column on page 119, but is silent or deficient to multiplexing RTP (i.e., aggregating data payloads) which is well known in the art.

Sengodan teaches the above concept in e.g., figure 3 with respect to mini-packets, see e.g., column 6, lines 37-40.

The examiner proposes to modify *Korpi*, *Thom*, and *Pirot* by clarifying that multiplexing RTP packets is well known in the art.

Hence examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the above limitation. In particular, one skilled in the art would have been motivated to perform the above modification for the purpose of relieving congestion. As such, *Sengodan* teaches the above motivation at e.g., column 6, lines 6-15. Examiner also notes a reasonable expectation of success since both references teach RTP.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571)272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DWF

Derrick W. Ferris
Examiner
Art Unit 2663


DERRICK FERRIS
PATENT EXAMINER